In the claims:

1.    (Previously Presented) A method used within a voice
over packet network telephone for processing packets
exchanged over a packet network having data packets and
voice packets comprising the steps of:
        the voice over packet network telephone receiving data
packets from a plurality of data processing devices;
        the voice over packet network telephone assigning a
first predetermined priority level to the voice packets, a
second user selected predetermined priority level to data
packets from a first data processing device of the
plurality of data processing devices and a third user
selected predetermined priority level to data packets from
a second data processing device of the plurality of data
processing devices where the first, second and third
predetermined priority levels are all different;
        determining whether the data packets need to be
divided into smaller data packets, dividing the data
packets into divided data packets if determined to be
needed and interspersing the divided data packets among the
voice packets; and
        the voice over packet network telephone sending the
data packets, including the smaller data packets if
divided, and the voice packets to a communications network
based upon the respective priorities of the  voice packets
and the data packets.

2.    (Original) The method of claim 1 wherein the step of
determining further comprises comparing the data packets to
a size threshold and determining that the data packets are

2

to be divided if the data packets are larger than the size
threshold.

3.    (Original) The method of claim 1 wherein the divided
data packets are of equal size.

4.    (Previously Presented) The method of claim 1 wherein
the divided data packets are randomly divided into random,
non-uniform size smaller packets.

5.    (Previously Presented) The method of claim 1 wherein
the first and second data processing device further
comprise devices selected from the group consisting of a
computer, a laptop computer, a personal digital assistant,
or a cellular telephone.

6.    (Original) The method of claim 1 wherein the voice
packets have a higher priority than the data packets from
the data processing device.

7.    (Original) The method of claim 6 wherein the higher
priority voice packets are processed before the data
packets.

8.    (Original) The method of claim 1 wherein each data
packet and each voice packet is assigned a priority
corresponding to the order in which the packet is
processed.

9.    (Previously Presented) The method of claim 1 wherein
at least one of the data packet priorities is a higher

priority than the voice packet priority and higher priority data packets are processed before the voice packets.

10. (Original) The method of claim 1 wherein the communications network comprises one of a frame relay network, Asynchronous Transfer Mode network, and Internet Protocol network.

11. (Original) The method of claim 1 wherein the communication network adheres to Ethernet protocols.

12. (Currently Amended) The method of claim 1 wherein the ~~step of receiving is performed~~ voice packets are exchanged over the packet network by a first Ethernet transceiver and data packets are exchanged with the first data processing device use a second transceiver.

13. (Currently Amended) The method of claim 1 wherein ~~the step of sending is performed by a second Ethernet transceiver~~ selected data packets exchanged with the first data processing device are assigned a higher priority than the voice packets, and all remaining data packets exchanged with the first data processing device are assigned a lower priority than the voice packets.

14. (Original) The method of claim 1 wherein the step of receiving and the step of sending is performed by the same Ethernet transceiver.

15. (Previously Presented) A method used within a voice over packet network telephone for processing data packets

exchanged over a packet network having data packets and voice packets comprising the steps of:

the voice over packet network telephone receiving data packets from a plurality of data processing devices;

the voice over packet network telephone assigning a first predetermined priority level to the voice packets, a user selected second predetermined priority level to data packets from a first data processing device of the plurality of data processing devices and a user selected third predetermined priority level to data packets from a second data processing device of the plurality of data processing devices, where the first, second and third predetermined priority levels are all different;

the voice over packet network telephone determining whether the data packets need to be divided into smaller data packets, dividing the data packets into divided data packets if determined to be needed and interspersing the divided data packets among the voice packets;

the voice over packet network telephone assigning a higher priority to the voice packets than the data packets, including the smaller data packets if divided; and

the voice over packet network telephone sending the data packets, including the smaller data packets if divided, and the voice packets to a communications network based upon the respective priorities of the voice packets and data packets.

16. (Original) The method of claim 15 wherein the step of determining further comprises comparing the data packets to a size threshold and determining that the data packets are to be divided if the data packets are larger than the size threshold.

5

17.   (Previously Presented) The method of claim 15 wherein
the first and second data processing device further
comprise one of the group consisting of a computer, a
laptop computer, a personal digital assistant, and a
cellular telephone.

18.   (Original) The method of claim 15 wherein the
communications network comprises one of a frame relay
network, Asynchronous Transfer Mode network, and Internet
Protocol network.

19.   (Original) The method of claim 15 wherein the
communications network adheres to Ethernet protocols.

20.   (Previously Presented) A method used within a voice
over packet network telephone for processing data packets
exchanged over a packet network having data packets and
voice packets comprising the steps of:
     the voice over packet network telephone receiving data
packets from a communications network;
     the voice over packet network telephone separating the
data packets from the communications network into data
packets destined for a phone and data packets destined for
a first or a second data processing device interconnected
with the packet network through the phone; and
     the voice over packet network telephone assigning a
higher predetermined priority to the data packets destined
for the phone and user selected first and second lower
predetermined priorities to data packets destined for the
first and second data processing devices, where the higher
priority of the phone and the first and second lower

priorities for the first and second data processing devices are all different.

21. (Original) The method of claim 20 further comprising the step of determining whether the data packets not destined for the phone need to be divided into smaller data packets not destined for the phone, dividing the data packets not destined for the phone into divided data packets not destined for the phone if determined to be needed and interspersing the divided data packets not destined for the phone among the data packets destined for the phone.

22. (Original) The method of claim 21 wherein the step of determining further comprises comparing the data packets not destined for the phone to a size threshold and determining that the data packets not destined for the phone are to be divided if the data packets not destined for the phone are larger than the size threshold.

23. (Original) The method of claim 21 wherein the divided data packets are of unequal size.

24. (Original) The method of claim 21 wherein the divided data packets are of equal size.

25. (Original) The method of claim 20 wherein the data packets destined for the phone have a higher priority than the data packets not destined for the phone.

26. (Original) The method of claim 25 wherein the higher priority data packets destined for the phone are processed before the data packets not destined for the phone.

27. (Original) The method of claim 20 wherein each data packet destined for the phone and each data packet not destined for the phone is assigned a priority corresponding to the order in which the data packet is processed.

28. (Original) The method of claim 20 wherein the communications network comprises one of a frame relay network, Asynchronous Transfer Mode network, and Internet Protocol network.

29. (Original) The method of claim 20 wherein the communications network adheres to Ethernet protocols.

30. (Original) The method of claim 20 wherein the step of receiving is performed by an Ethernet transceiver.

31. (Previously Presented) A method used within a voice over packet network telephone for processing data packets exchanged over a packet network comprising the steps of:

the voice over packet network telephone receiving data packets from a communications network;

the voice over packet network telephone separating the data packets from the communications network into data packets destined for  the voice over packet network telephone and data packets not destined for the telephone and, instead, are destined for a plurality of data processing devices interconnected with the packet network through the phone;

assigning a first predetermined priority level to the voice packets, a user selected second predetermined priority level to data packets from a first data processing device of the plurality of data processing devices and a user selected third predetermined priority level to data packets from a second data processing device of the plurality of data processing devices where the first, second and third priority levels are all different;

determining whether the data packets not destined for the phone need to be divided into smaller data packets not destined for the phone, dividing the data packets not destined for the phone into divided data packets not destined for the phone if determined to be needed and interspersing the divided data packets not destined for the phone among the data packets destined for the phone; and

sending the data packets not destined for the phone including the smaller data packets if divided, to the first and second data processing device based upon the respective priorities of the voice packets and data packets.

32. (Original) The method of claim 31 wherein the data packets destined for the phone have a higher priority than data packets not destined for the phone.

33. (Original) The method of claim 31 wherein the communications network comprises a packet network including frame relay, Asynchronous Transfer Mode, and transport over Internet Protocol.

34. (Original) The method of claim 31 wherein the communications network adheres to Ethernet protocols.

9

35. (Original) The method of claim 31 wherein the step of receiving is performed by an Ethernet transceiver.

36. (Previously Presented) A method used within a voice over packet network telephone for processing data packets exchanged over a packet network having data packets and voice packets comprising the steps of:

the voice over packet network telephone receiving data packets from a plurality of data processing devices;

the voice over packet network telephone assigning a first predetermined priority level to the voice packets, a second user selected predetermined priority level to data packets associated with a first data processing device of the plurality of data processing devices and a third user selected predetermined priority level to data packets associated with a second data processing device of the plurality of data processing devices, where the first priority level has a higher relative value than the second and third priorities and where the first, second and third priority levels are all different;

determining whether the data packets from the plurality of data processing devices need to be divided into smaller data packets from the data processing devices, dividing the data packets from the data processing devices into divided data packets from the data processing devices if determined to be needed and

the voice over packet network telephone interspersing the divided data packets from the data processing device among the voice packets;

the voice over packet network telephone sending the data packets from the data processing device, including the

10

smaller data packets from the data processing device if divided, and the voice packets to a communications network based upon the respective priorities of the voice packets and the data packets;

the voice over packet network telephone receiving data packets from the communications network;

the voice over packet network telephone separating the data packets from the communications network into voice packets and data packets not destined for a phone;

the voice over packet network telephone determining whether the data packets not destined for the phone need to be divided into smaller data packets not destined for the phone, dividing the data packets not destined for the phone into divided data packets not destined for the phone if determined to be needed and interspersing the divided data packets not destined for the phone among the voice packets; and

the voice over packet network telephone sending the data packets not destined for the phone including the smaller data packets if divided, to the data processing devices based upon the respective priorities of the data packets.

37. (Original) The method of claim 36 wherein the divided data packets are of unequal size.

38. (Previously Presented) The method of claim 36 wherein the first and second data processing devices further comprise one of the group consisting of a computer, a laptop computer, a personal digital assistant, and a cellular telephone.

39.   (Original) The method of claim 36 wherein the higher priority voice packets are processed before the data packets.

40.   (Original) The method of claim 36 wherein the communications network comprises one of a frame relay network, Asynchronous Transfer Mode network, and Internet Protocol network.

41.   (Original) The method of claim 36 wherein the communications network adheres to Ethernet protocols.

42.   (Previously Presented) The method of claim 36 wherein the step of receiving the data packets from a data processing is device performed by a first Ethernet transceiver.

43.   (Original) The method of claim 36 wherein the step of sending data packets from the data processing device, including the smaller data packets from the data processing device if divided, and the voice packets to a communications network is performed by a second Ethernet transceiver.

44.   (Previously Presented) A voice over packet network telephone  for processing data packets exchanged over a packet network having data packets to and from a plurality of data processing devices and  voice packets to and from the voice over packet network telephone  comprising:

     a user interface within the voice over packet network telephone with the ability to place and receive phone calls comprising voice packets; and

a network manager within the voice over packet network telephone coupled to the user interface, the data processing devices and the packet network and adapted to process voice and data packets based upon use of a first predetermined priority for the voice packets, a user selected second predetermined priority for a first data processing device of the plurality of data processing devices and a user selected third predetermined priority for a second data processing device of the plurality of data processing devices where the first, second and third priorities are all different and whereby the network manager determines whether to divide the data packets from the plurality of data processing devices and intersperse the divided data packets among the voice packets based upon the relative priorities of the voice packets and data packets.

45. (Original) The system of claim 44 further comprising a voice interface that performs conversion between analog voice and digital voice samples.

46. (Original) The system of claim 44 further comprising a processor unit to perform voice processing, call processing, and protocol processing functions of the phone system.

47. (Original) The system of claim 44 further comprising an external interface to communicate with a peripheral device comprising one of a personal digital assistant, a cellular telephone, and a laptop computer.

48. (Previously Presented) The system of claim 44 wherein the first and second data processing device comprises one of the group consisting of a computer, a laptop computer, a personal digital assistant, and a cellular telephone.

49. (Original) The system of claim 44 wherein the network manager places a higher priority on voice packets than on data packets.

50. (Original) The system of claim 49 wherein the higher priority voice packets are processed by the network manager before the data packets.

51. (Original) The system of claim 44 wherein the network manager compares the size of data packets to a size threshold and divides data packets that are larger than the size threshold.

52. (Currently Amended) The system of claim 44 wherein the network manager randomly divides the data packets into random, unequal size divided data packets.

53. (Currently Amended) The system of claim 44 wherein the network manager further comprises at least one Ethernet transceiver assigns a higher priority than the voice packets to selected data packets exchanged with the first data processing device and assigns a lower priority than the voice packets to all remaining data packets exchanged with the first data processing device.

54. (Original) The system of claim 44 wherein the packet network adheres to Internet protocols.

55.  (Original) The system of claim 44 wherein the network manager prioritizes data packets and voice packets into various priority levels.

56.  (Previously Presented) A voice over packet network telephone  for processing data packets exchanged over a packet network having data packets to and from a plurality of data processing devices  and voice packets to and from the voice over packet network telephone  comprising:

a user interface within the voice over packet network telephone with the ability to place and receive phone calls comprising voice packets; and

a network manager within the voice over packet network telephone coupled to the user interface, the data processing device and the packet network adapted to process voice and data packets based upon use of a first predetermined priority level for the voice packets, a second user selected predetermined priority level for a first data processing device of the plurality of data processing devices and a third user selected predetermined priority level for a second data processing device of the plurality of data processing devices where the first, second and third priority levels are all different and whereby the network manager determines whether to divide the data packets, intersperse the divided data packets among the voice packets, and place a higher priority on the voice packets than on the divided data packets, if determined to be needed based upon the relative priority levels of the voice and data packets.

57.    (Previously Presented) A voice over packet network
telephone for processing voice packets and data packets
over a packet network comprising:

means within the voice over packet network telephone
for receiving data packets from a plurality of data
processing devices where the voice packets have a first
predetermined priority, data packets from a first data
processing device of the plurality of data processing
devices have a second user selected predetermined priority
and data packets from a second data processing device of
the plurality of data processing devices have a third user
selected predetermined priority and where the first, second
and third priorities are all different;

means within the voice over packet network telephone
for determining whether the data packets need to be divided
into smaller data packets, dividing the data packets into
divided data packets if determined to be needed and
interspersing the divided data packets among voice packets;
and

means within the voice over packet network telephone
for sending the data packets, including the smaller data
packets if divided, and the voice packets to a
communications network based upon the relative priorities
of the voice and data packets.


58.    (Previously Presented) A voice over packet network
telephone for processing data packets over a packet network
comprising:

the voice over packet network telephone receiving data
packets from a communications network;

the voice over packet network telephone separating the
data packets from the communications network into data

packets destined for a phone and data packets not destined for the phone, said data packets not destined for the phone, instead, being destined to one of a plurality of data processing devices;

the voice over packet network telephone providing a first predetermined priority for data packets destined for the phone, a second user selected predetermined priority for data packets destined for a first data processing device of the plurality of data processing devices and a third user selected predetermined priority for data packets destined for a second data processing device of the plurality of data processing devices;

the voice over packet network telephone assigning a higher priority to the data packets destined for the phone; and

the voice over packet network telephone distributing the data packets based upon the respective priorities of the data packets.

59. (Previously Presented) A voice over packet network telephone for processing data packets over a packet network comprising:

means within the voice over packet network telephone for receiving data packets from a plurality of data processing devices;

means within the voice over packet network telephone for determining whether the data packets from the data processing devices need to be divided into smaller data packets from the data processing devices, dividing the data packets from the data processing devices into divided data packets from the data processing devices if determined to

be needed and interspersing the divided data packets from the data processing devices among voice packets;

means within the voice over packet network telephone for assigning a higher predetermined priority to the voice packets, a first user selected lower predetermined order of priority to data packets from the first data processing device and a second user selected lower predetermined order of priority to data packets from the second data processing device wherein the first and second lower orders of priority are different from each other and from the higher priority;

means within the voice over packet network telephone for sending the data packets from the data processing devices, including the smaller data packets from the data processing devices if divided, and the voice packets to a communications network based upon the relative priorities of the voice and data packets;

means within the voice over packet network telephone for receiving data packets from the communications network;

means within the voice over packet network telephone for separating the data packets from the communications network into voice packets and data packets not destined for a phone;

means within the voice over packet network telephone for determining whether the data packets not destined for the phone need to be divided into smaller data packets not destined for the phone; dividing the data packets not destined for the phone into divided data packets not destined for the phone if determined to be needed and interspersing the divided data packets not destined for the phone among the voice packets; and

18

means within the voice over packet network telephone for sending the data packets destined for the phone and not destined for the phone including the smaller data packets if divided, to the phone and data processing devices based upon the relative priorities of the data packets.